Amendments to the Claims:

A clean listing of the entire set of pending claims is submitted herewith per 37 CFR 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method, ~~for improving electrical energy transfer from electroluminescent organic molecules (12) to quantum dots (14) embedded in a organic material matrix, the method~~ comprising: ~~the steps of~~

[[-]] providing [[a]]an organic matrix ~~(10)~~ of electroluminescent organic molecules with embedded quantum dots,

[[-]] providing one or more transfer molecules ~~(15)~~ on the surfaces of the quantum dots,

[[-]] supplying electrons and holes to the organic matrix using first and second electrical contacts ~~(4, 6)~~ in electrical contact with the organic matrix,

[[-]] in response to the supplied electrons and holes, generating excited states in the electroluminescent organic ~~molecule~~ molecules of the organic matrix in the form of excitons,

[[-]] transferring excitons from the electroluminescent organic ~~molecule~~ molecules to the transfer molecules on the quantum dots, and

[[-]] transferring excitons from the transfer molecules to the quantum dots.

2. (Currently Amended) The method ~~according to~~ of claim 1, wherein ~~the step of~~ providing [[a]]an organic matrix of electroluminescent organic molecules with embedded quantum dots, comprises ~~the step of~~ preparing the organic matrix from a solution of electroluminescent organic molecules and quantum dots.

3. (Currently Amended) The method ~~according to~~of claim 1, further comprising ~~the step of~~ confining electrons and holes in the matrix by providing electron and hole blocking layers adjacent to the matrix.

4. (Currently Amended) The method ~~according to~~of claim 1, wherein ~~the step of~~ providing one or more transfer molecules comprises a step of ~~selecting~~ providing transfer molecules which have a bandgap, $E_{transfer}$, which is smaller than a bandgap, $E_{org.\ mol.}$, of the electroluminescent organic molecules and larger than a bandgap, E_{QD}, of the quantum dots.

5. (Currently Amended) The method ~~according to~~of claim 1, wherein ~~the step of~~ providing one or more transfer molecules comprises ~~a step of selecting~~ providing phosphorescing transfer molecules.

6. (Currently Amended) The method ~~according to~~of claim 1, wherein ~~the step of~~ providing one or more transfer molecules comprises ~~a step of selecting~~ providing transfer molecules so that a transfer rate of excitons from the electroluminescent organic molecules to the transfer molecules is larger than a decay rate of excitons in the electroluminescent organic molecules.

7. (Currently Amended) The method ~~according to~~ of claim 1, wherein ~~the step of~~ providing one or more transfer molecules comprises ~~a step of selecting~~providing transfer molecules so that a transfer rate of excitons from the transfer molecules to the quantum dots is larger than a decay rate of excitons in the transfer molecules.

8. (Currently Amended) A ~~quantum dot embedded organic molecules device (2) with improved electrical energy transfer from electroluminescent organic molecules (12) to embedded quantum dots (14), the~~ device, comprising:

[[- a]] an organic matrix ~~(10)~~ of electroluminescent organic molecules embedded with quantum dots, and

[[-]] first and second electrical contacts ~~(4,6)~~ for supplying electrons and holes to the organic matrix,

wherein a quantum dot has one or more transfer molecules ~~(15)~~ attached to its surface for receiving excitons generated in the electroluminescent organic molecules and transferring received excitons to the quantum dot, ~~the transfer molecules being chosen so that~~ wherein a transfer rate of excitons from the electroluminescent organic molecules to the transfer molecules is larger than a decay rate of excitons in the electroluminescent organic molecules.

9. (Currently Amended) The device ~~according to~~of claim 8, wherein ~~the one or more transfer molecules are chosen so that~~ a transfer rate of excitons from the transfer molecules to the quantum dots is larger than a decay rate of excitons in the transfer molecules.

10. (Currently Amended) The device ~~according to~~of claim 8, wherein the electroluminescent organic molecules are electroluminescent polymers.

11. (Currently Amended) A process for fabricating a light emitting quantum dot embedded organic device ~~(2) with improved electrical energy transfer from electroluminescent organic molecules (12) to quantum dots (14)~~, the process comprising ~~the steps of~~:

[[a.]] providing a plurality of electroluminescent organic molecules in solution,

[[b.]] providing a solution comprising a plurality of quantum dots with one or more transfer molecules ~~(15)~~ attached to the surfaces, the transfer molecules having a bandgap, $E_{transfer}$, which is smaller than a bandgap, $E_{org.\ mol.}$, of the electroluminescent organic molecules and larger than a bandgap, E_{QD}, of the quantum dots,

[[c.]] mixing the electroluminescent organic molecule solution with the quantum dot solution,

[[d.]] providing a first electrical contact ~~(6)~~,

[[e.]] forming a matrix ~~(10)~~ of electroluminescent organic molecules with embedded quantum dots on the first electrical contact by depositing the mixed solution on the first electrical contact, and

[[f.]] depositing a second electrical contact ~~(4)~~ on the matrix.

12. (Currently Amended) The process ~~for fabricating according to~~ of claim 11, further comprising ~~the steps of~~ forming, between the matrix and the first or second electrode, a material layer for enhancing hole transport and deteriorating electron transport.

13. (Currently Amended) The process ~~for fabricating according to~~ of claim 11, further comprising ~~the steps of~~ forming, between the matrix and the second or first electrode, a material layer for enhancing electron transport and deteriorating hole transport.